

### **REMARKS**

Claims 16-52 are pending following entry of the above amendments to the claims.

Added claims 16-37 find support inter alia in the specification in the examples (for example, pHs 6.2 and 6.6 are shown in examples 66 and 67) at pages 20-27 and at page 2, lines 28-36 (bis-Tris buffer), page 3, lines 12-15 (pH of 6-7), page 4, lines 3-4 (2-10 mg/ml of GLP-1 analogue), page 13, lines 16-31 (1-15 % ethanol), and page 14, lines 3-5 (20-25 degrees Celsius).

Added claims 38-52 find support inter alia at page 2, line 28, page 3, lines 16-17, page 13, lines 2-31, page 14, lines 4-5, and page 18, line 26 of the specification

The Examiner's objection to the specification for the word "obtainable" at page 14 is addressed by the amendment to the specification presented herein.

### **REJECTION OF THE CLAIMS UNDER 35 U.S.C. 112, SECOND PARAGRAPH**

The rejections of claims 1-15 are rendered moot by the cancellation of those claims and the addition of new claims 16-52.

### **REJECTION OF THE CLAIMS UNDER 35 U.S.C. 102 (b)**

The Examiner rejected claims 1, 2, 4, 6, 7, 9-11, 13 and 15 under section 102 (b) as being anticipated by WO 99/30731; claims 1, 3-4, 6 and 14 as being rejected under section 102 (b) as being anticipated by EP 0 619 322; and claims 1, 5, 11, 13 and 15 as being rejected as anticipated by Pridal et al [International J. of Pharmaceutics, (1996) 136:53-59].

In reply, Applicant submits that these rejections do not apply to pending claims 16-52 since these claims are all directed i) to a GLP-1 analogue (claims 16-37), Arg<sup>34</sup>GLP-1 (7-37), that was the subject matter of a claim (now cancelled claim 8) that was not included in the above rejections or ii) to a peptide, exendin-4 (claims 38-52), which is not disclosed in the cited prior art.

### **REJECTION OF THE CLAIMS UNDER 35 U.S.C. 103**

Claims 1-15 were rejected under section 103 as obvious over WO 99/30731 taken with EP 0 619 322 or Pridal or WO 98/08871.

WO 99/30731 is cited as teaching producing crystals of a GLP-1 analogue by preparing an aqueous solution of the analogue, a salt and an organic solvent; EP 0 619 322 as teaching a process for making needle shaped crystals of a GLP-1 analogue; and WO 98/08871 as teaching Arg<sup>34</sup> GLP-1 (7-37) as a GLP-1 analogue. The Examiner thus concludes that the combined teachings of the prior art render obvious a method of producing crystals of GLP-1 analogues in the absence of unexpected results to the contrary.

Applicant respectfully traverses this rejection.

With respect to pending claims 16-37, the two pending independent claims 16 and 26 are directed to crystallization of a specific GLP-1 analogue [Arg<sup>34</sup>GLP-1 (7-37)] to produce needle-shaped crystals under specific conditions (100-200 mM inorganic salt, 1-15 % ethanol and 20-25 degrees Celsius) that are neither taught nor suggested by the combination of the cited art. For example, the fact that the production of regular shaped needle-shaped crystals of Arg<sup>34</sup>GLP-1 (7-37) was observed when ethanol was used as the solvent but that the production of needle-shaped crystals of Arg<sup>34</sup>GLP-1 (7-37) was not observed when glycerol was used as a solvent (see Examples 16-18 on page 23 of the application) is a result that is neither taught nor suggested by the prior art. Moreover, Applicant notes that the additional limitations contained in dependent claims 17-25 and 27-37 further distinguish the claimed method from the combined teachings of the prior art.

With respect to claims 38-52, neither of the references cited by the Examiner as teaching crystallization of GLP-1 analogues (WO 99/30731 and EP 0 619 322) either teaches or suggests the crystallization of exendin-4 and this deficiency is not remedied by either Pridal or WO 98/08871.


Accordingly, in view of the above amendments and arguments, Applicant respectfully requests withdrawal of the section 103 rejection as it might be applied to the pending claims.

The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this amendment or application.

Please charge any deficiencies or overpayment to Deposit Account No. 14-1447.

Respectfully submitted,

Date: February 27, 2004

  
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